Application No.: 10/666,477 Docket No.: HO-P02228US1

## b.) Amendments to the Claims:

As of this filing, claims 7-15 are pending. Claims 1-6 are canceled herein, and claims 7-10, 12, and 13 are currently amended. The following is a list of the pending claims, with appropriate status identifiers.

- 1.-6. (canceled).
- 7. (currently amended) A vertebral disc prosthesis for implantation in a patient, said prosthesis comprising
  - at least one surface of cross-linked polyethylene; and,
  - at least one component formed of zirconium or zirconium alloy and having at least one surface of diffusion-bonded blue-black or black oxidized zirconium,
  - wherein said at least one surface of cross-linked polyethylene <u>articulates against</u> ecoperates with said at least one surface of <u>diffusion-bonded</u> blue-black or black oxidized zirconium.
- 8. (currently amended) The vertebral disc prosthesis of claim 7 further comprising:
  - two prosthesis plates; and,
  - a prosthesis core
  - said prosthesis core <u>articulating against</u> cooperates with at least one <u>of said two</u> <u>prosthesis plates</u> prosthesis plate at surface permitting a rotational movement around a vertical axis.
- (currently amended) The vertebral disc prosthesis of claim 7 wherein said surface of diffusion-bonded blue-black or black oxidized zirconium is from about 1 to 20 microns thick.
- 10. (currently amended) The vertebral disc prosthesis of claim 7 wherein said surface of diffusion-bonded blue-black or black oxidized zirconium is from about 1 to 5 microns thick.

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11. (original) The vertebral disc prosthesis of claim 7 wherein said at least one component comprises an irregular surface structure adapted to accommodate tissue in-growth on a portion of the prosthesis body.

- 12. (currently amended) The vertebral disc prosthesis of claim 11 wherein the irregular surface structure comprises beads attached to the outer surface of the prosthesis body, wherein at least a portion of the surface of the beads is oxidized to <u>diffusion-bonded</u> blue-black or black oxidized zirconium.
- 13. (currently amended) The vertebral disc prosthesis of claim 11 wherein the irregular surface structure comprises wire mesh connected to the outer surface of the prosthesis body, wherein at least a portion of the surface of the mesh is oxidized to diffusion-bonded blue-black or black oxidized zirconium.
- 14. (original) The vertebral disc prosthesis of claim 11 wherein the irregular surface structure comprises a textured surface.
- 15. (original) The vertebral disc prosthesis of claim 11 wherein the irregular surface structure comprises anchoring projections or teeth.

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